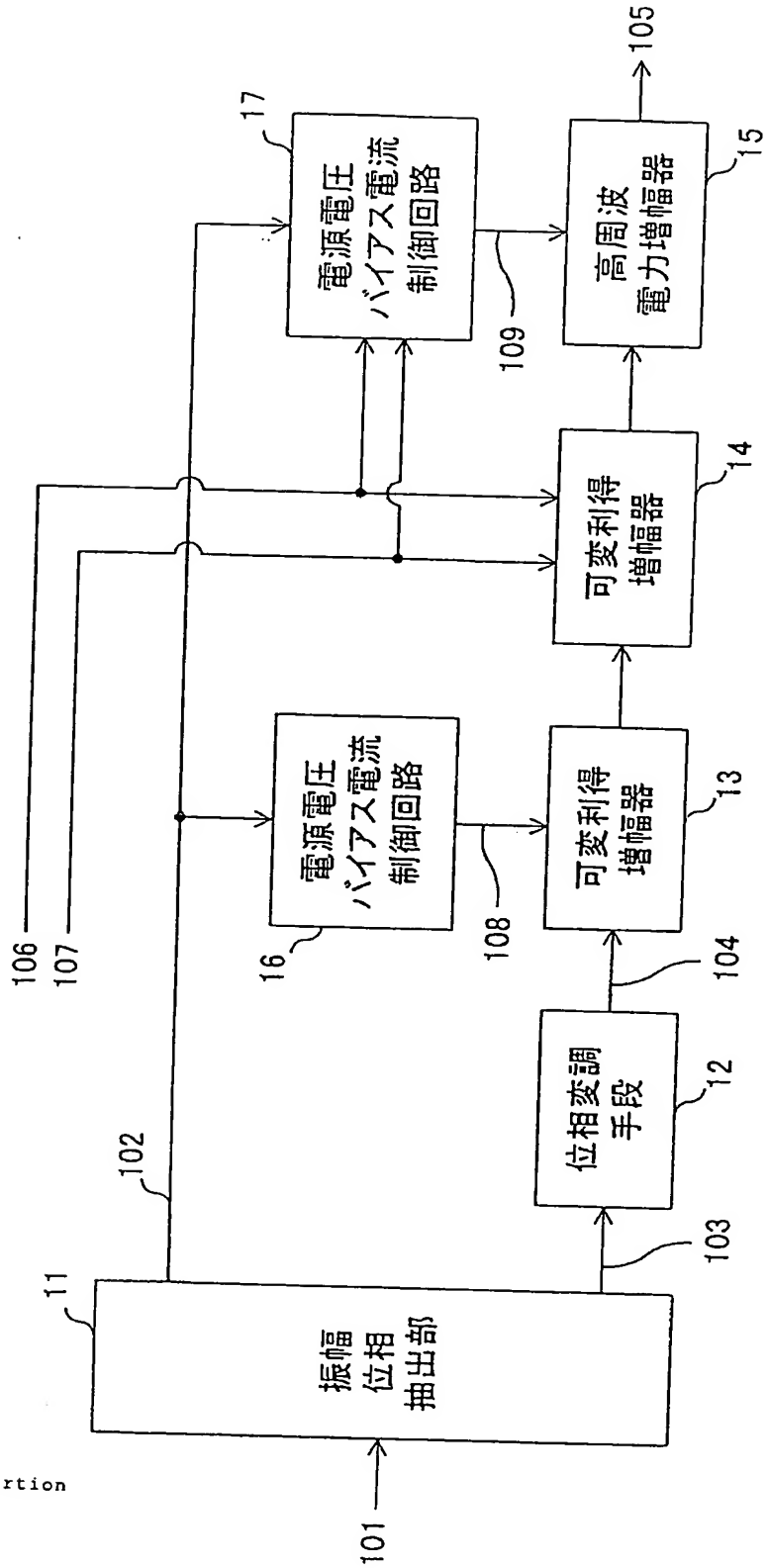
Fig. 1



11: amplitude/phase extraction portion

12: phase modulation means

13: variable gain amplifier

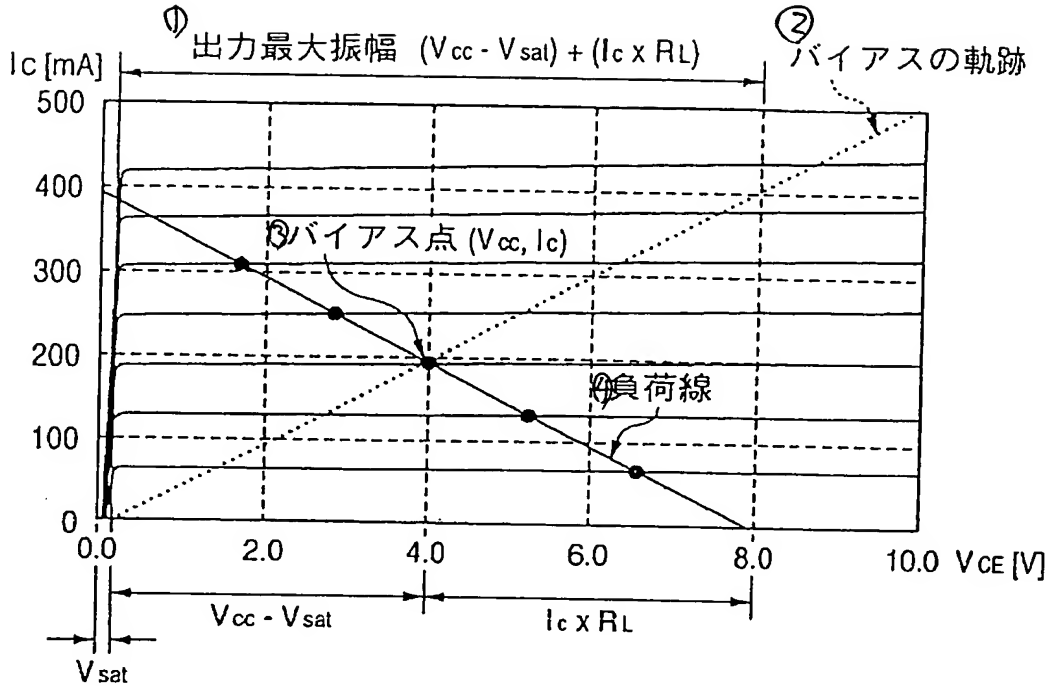
14: variable gain amplifier

15: high-frequency power amplifier

16: supply voltage/bias current control circuit

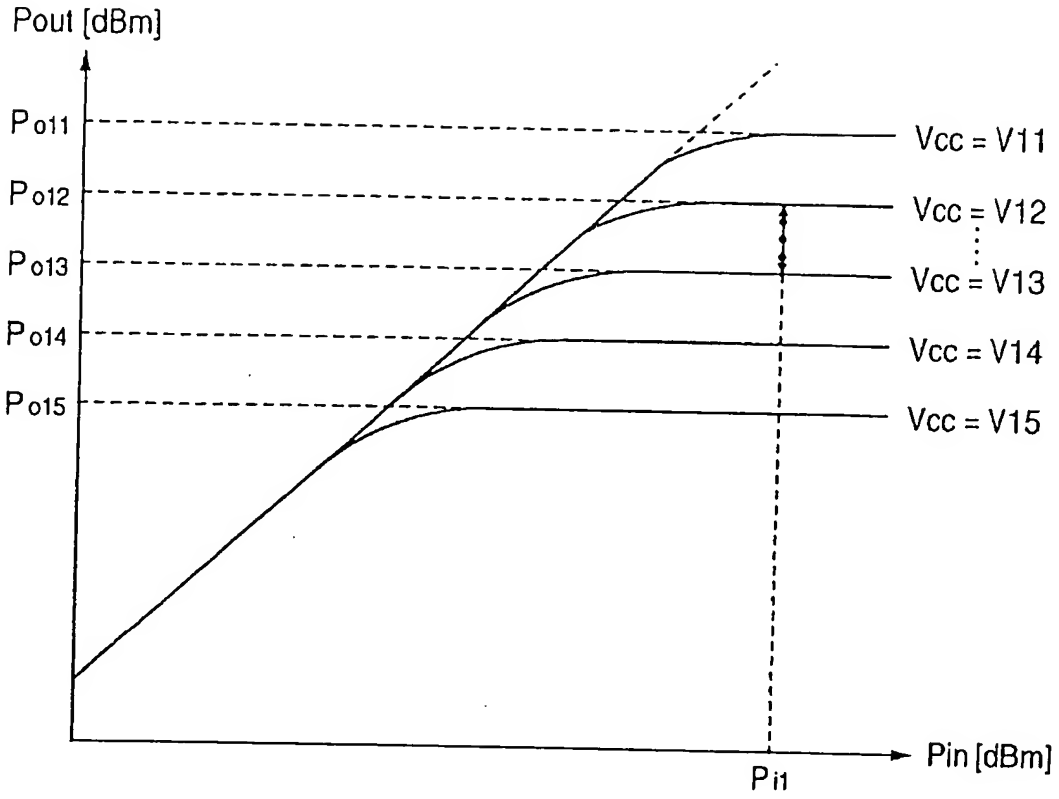
17: supply voltage/bias current control circuit

Fig.2



① maximum output amplitude
② locus of bias
③ bias point
④ load line

Fig. 3


Pout [dBm]
Po11
Po12
Po13
Po14
Po15
Vcc = V11
Vcc = V12
Vcc = V13
Vcc = V14
Vcc = V15
Pin [dBm]
Pi1

① time

② linear operating mode

③ gain of variable gain amplifier 14

④ voltage of supply voltage/bias current control circuit 17

⑤ current of supply voltage/bias current control circuit 17

⑥ saturation operating mode

⑦ gain of variable gain amplifier 14

Fig. 4

①時間	② 線形動作モード			⑥ 飽和動作モード		
	③可変利得増幅器14の利得	④電源電圧バイアス電流制御回路17の電圧	⑤電源電圧バイアス電流制御回路17の電流	⑦可変利得増幅器14の利得	⑧電源電圧バイアス電流制御回路17の電圧	⑨電源電圧バイアス電流制御回路17の電流
t(1,1)	g_1	V_1	I_1	$g_1+\alpha$	V(1,1)	I(1,1)
t(1,2)	g_1	V_1	I_1	$g_1+\alpha$	V(1,2)	I(1,2)
t(1,3)	g_1	V_1	I_1	$g_1+\alpha$	V(1,3)	I(1,3)
t(1,4)	g_1	V_1	I_1	$g_1+\alpha$	V(1,4)	I(1,4)
t(1,5)	g_1	V_1	I_1	$g_1+\alpha$	V(1,5)	I(1,5)
t(1,6)	g_1	V_1	I_1	$g_1+\alpha$	V(1,6)	I(1,6)
.....	.....	.....	.....	.....	.....	.....
t(n,1)	g_n	V_n	I_n	$g_n+\alpha$	V(n,1)	I(n,1)
t(n,2)	g_n	V_n	I_n	$g_n+\alpha$	V(n,2)	I(n,2)
t(n,3)	g_n	V_n	I_n	$g_n+\alpha$	V(n,3)	I(n,3)
t(n,4)	g_n	V_n	I_n	$g_n+\alpha$	V(n,4)	I(n,4)
t(n,5)	g_n	V_n	I_n	$g_n+\alpha$	V(n,5)	I(n,5)
t(n,6)	g_n	V_n	I_n	$g_n+\alpha$	V(n,6)	I(n,6)
.....	.....	.....	.....	.....	.....	.....

⑧ voltage of supply voltage/bias current control circuit 17

⑨ current of supply voltage/bias current control circuit 17

Fig.5

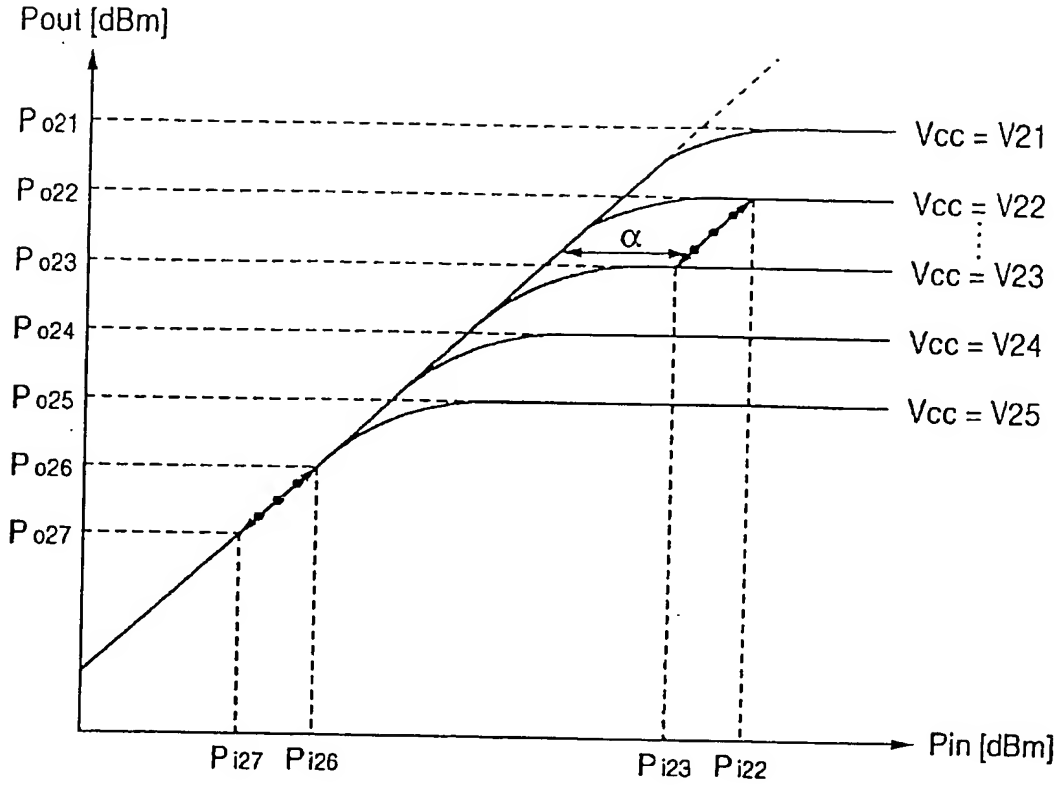
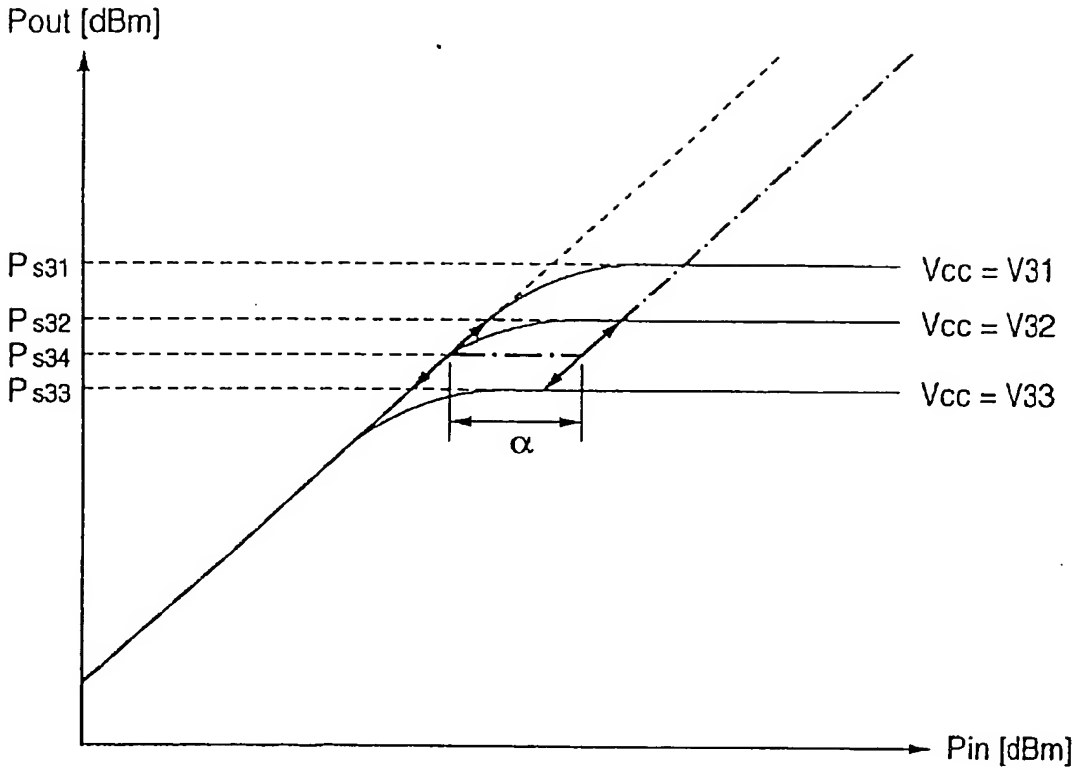

Pout [dBm]
P o21
P o22
P o23
P o24
P o25
P o26
P o27
Vcc = V21
Vcc = V22
Vcc = V23
Vcc = V24
Vcc = V25
α
P i27
P i26
P i23
P i22
Pin [dBm]

Fig.6



11: amplitude/phase extraction portion

12: phase modulation means

21: mixer

14: variable gain amplifier

15: high-frequency power amplifier

17: supply voltage/bias current control circuit

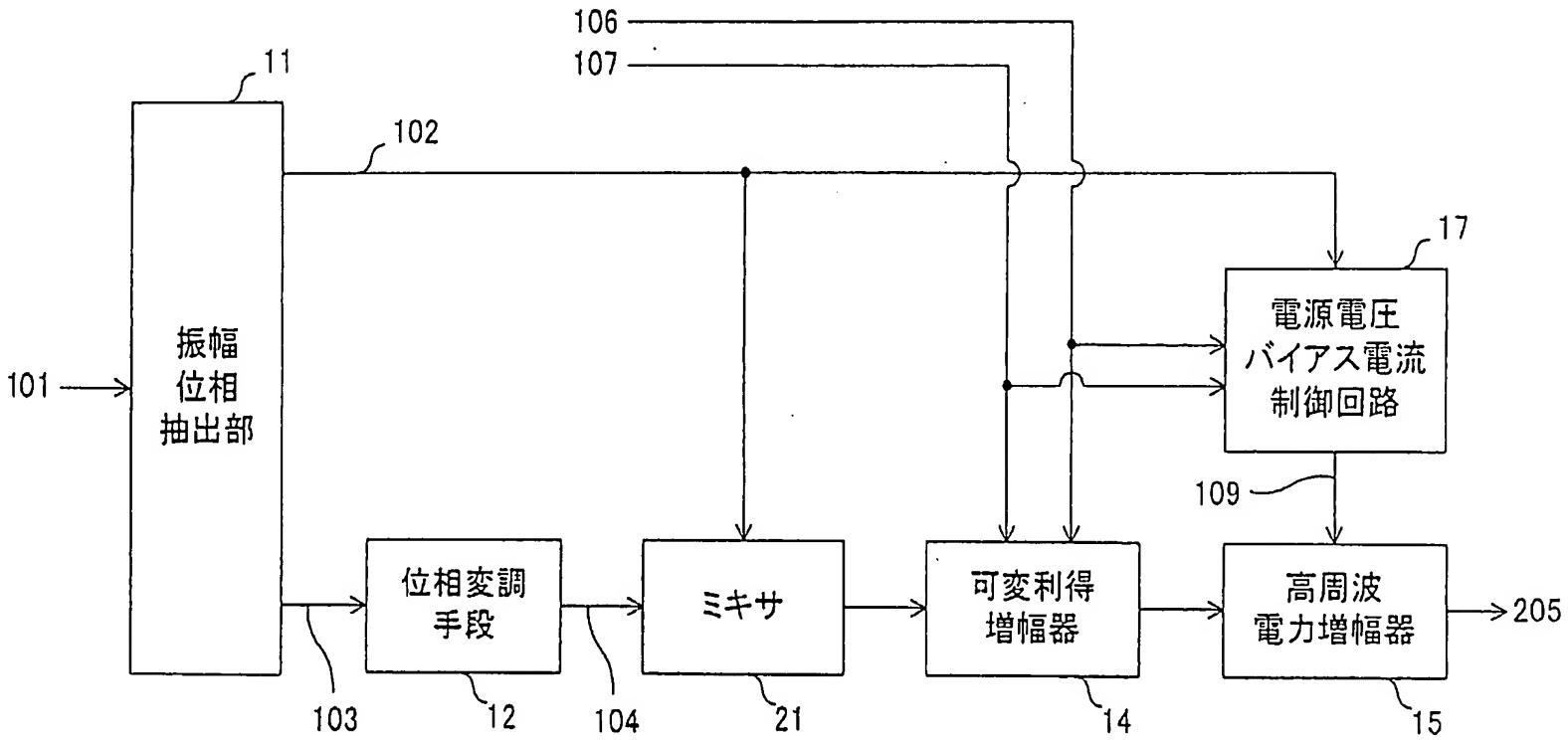
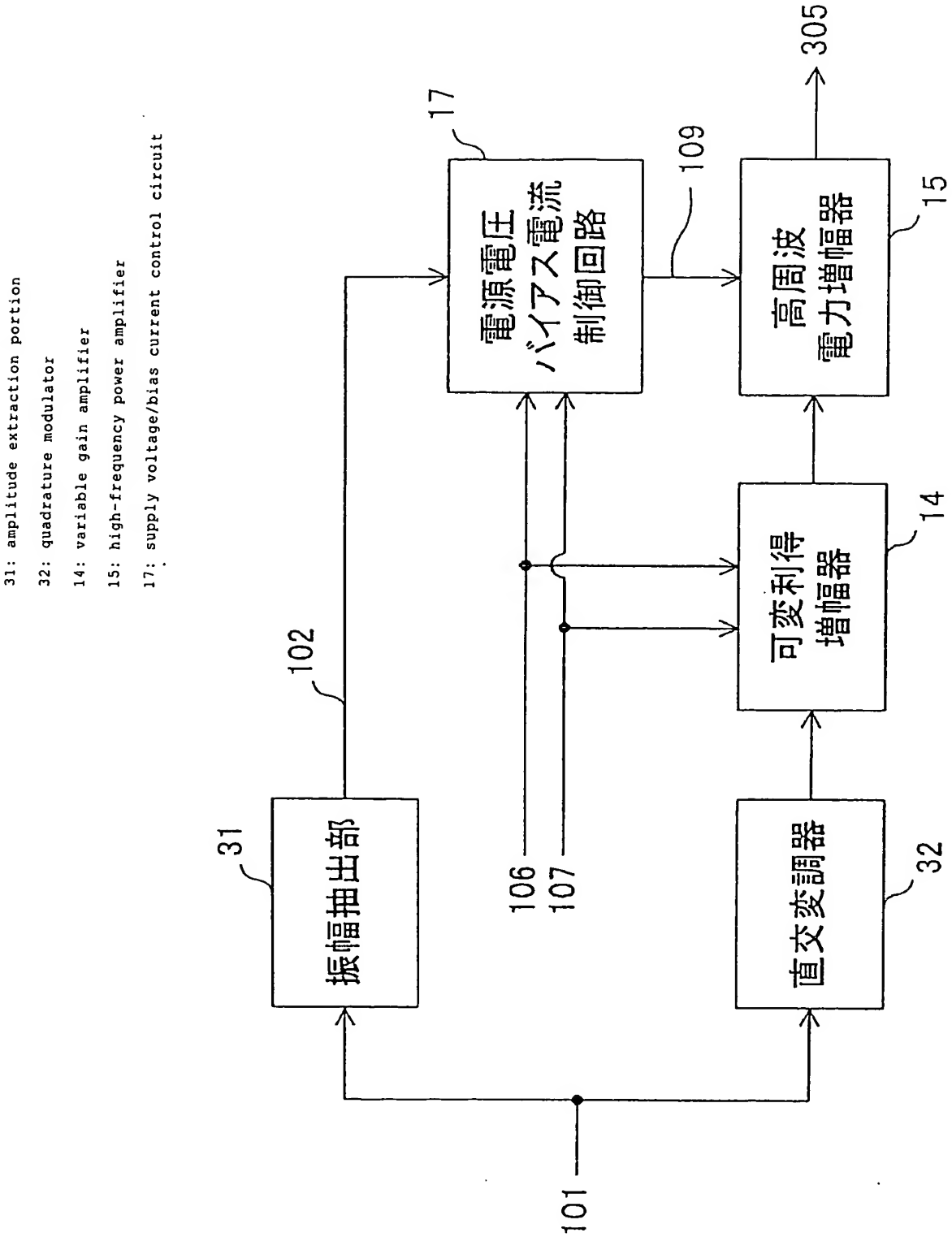


Fig 8



31: amplitude extraction portion

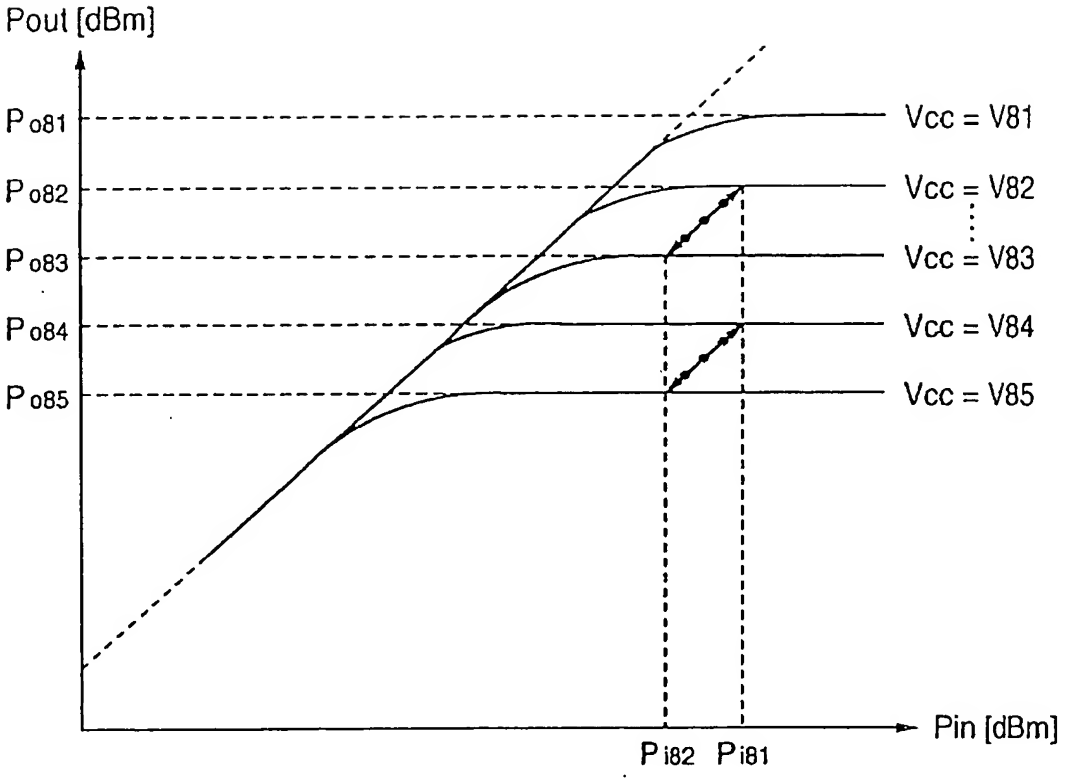
32: quadrature modulator

14: variable gain amplifier

15: high-frequency power amplifier

17: supply voltage/bias current control circuit

Fig. 9


Pout [dBm]
Po81
Po82
Po83
Po84
Po85
Vcc = V81
Vcc = V82
Vcc = V83
Vcc = V84
Vcc = V85
Pin [dBm]
Pi82
Pi81